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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 05/01/2003

The Goodyear Tire & Rubber Company
Patent & Trademark Department - D/823
1144 East Market Street
Akron, OH 44316-0001

EXAMINER

HU, HENRY S

ART UNIT

CLASS-SUBCLASS

1713

524-081000

DATE MAILED: 05/01/2003

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/782,562 | 02/13/2001 | Serge Magnet | DN2001030 | 9636 |

TITLE OF INVENTION: UV RESISTANT RESIN FOR PARAFFINIC SOLVENT BASED PAINT

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE | PUBLICATION FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|-----------|-----------------|------------------|------------|
| nonprovisional | NO | \$1300 | \$300 | \$1600 | 08/01/2003 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

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If the SMALL ENTITY is shown as NO:

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B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

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Alexandria, Virginia 22313-1450
Fax (703)746-4000**

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7590 05/01/2003

The Goodyear Tire & Rubber Company
Patent & Trademark Department - D/823
1144 East Market Street
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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

| |
|--------------------|
| (Depositor's name) |
| (Signature) |
| (Date) |

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| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|-------------|----------|----------------|
| HU, HENRY S | 1713 | 524-081000 |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) ☐ individual ☐ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

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- ☐ Publication Fee
- ☐ Advance Order - # of Copies _____

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(Authorized Signature)

(Date)

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.** SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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| The Goodyear Tire & Rubber Company Patent & Trademark Department - D/823 1144 East Market Street Akron, OH 44316-0001 | | | HU, HENRY S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1713 | |
| DATE MAILED: 05/01/2003 | | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 142 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 142 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (<http://pair.uspto.gov>)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



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| The Goodyear Tire & Rubber Company Patent & Trademark Department - D/823 1144 East Market Street Akron, OH 44316-0001 UNITED STATES | | | HU, HENRY S | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1713 | |
| DATE MAILED: 05/01/2003 | | | | |

Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: <http://www.uspto.gov/main/howtofees.htm>.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No.

09/782,562

Examiner

Henry S. Hu

Applicant(s)

MAGNET, SERGE

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment of february 3, 2003.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____ | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

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EXAMINER'S AMENDMENT

5/B
4/21/3
BH

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Garth Dahlen (tel: 703 205-8000) on April 17, 2003 to cancel Claims 11-20.



Claims 11-20 are cancelled.

DETAILED ACTION

2. Applicants' amendment filed on February 3, 2003 (Paper No. 4) was received.

The paragraph beginning on page 4 at line 31 and end at page 5 at line 12 was replaced with new paragraph. With respect to the recitation of "t-dodecyl" on page 7 at line 23, the Applicants have submitted a copy of page 623 of the Aldrich catalog to show "tert-dodecyl mercaptan" or "tert-dodecanethiol" is taught to be a mixture of isomers. Therefore, the examiner now removes the specification objections. After further examination on amendment, the

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examiner withdraws are the claim rejections under 35 U.S.C. 103(a) as being unpatentable over Gindre et al. (US 5,496,905) in view of Aerts et al. (US 5,753,756) for Claims 1-10, and under 35 U.S.C. 103(a) as being unpatentable over Yezrielev et al. (US 5,034,154) in view of Aerts et al. (US 5,753,756) for Claims 1-10 for the reasons given in paragraphs 3-11 thereafter. Claims 11-20 are cancelled from the above examiner's amendment.

Allowable Subject Matter

3. Claims 1-10 are allowed.

4. The following is an examiner's statement of reasons for allowance: The above claims 1-10 are allowed over the closest references:

5. *The parent Claim 1 of the present invention relates to a resin useful in making paraffinic solvent based paints. The resin comprises monomers of: (A) 5-60 wt% of t-butyl cyclohexyl methacrylate, (B) 0-40 wt% of vinyl aromatic monomers, (C) 20-80 wt% of alkyl methacrylates, and (D) 1-30 wt% of alkyl acrylates.*

6. Regarding the limitation of parent Claim 1, Gindre et al. disclose a resin particularly useful in making paraffinic solvent-based paints. The resin comprises monomers of: (A) 15-55 wt% of para-t-butyl styrene, (B) 0-40 wt% of vinyl aromatic monomers, (C) 20-80 wt% of

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alkyl methacrylates, and (D) 2-25 wt% of alkyl acrylates. (Abstract, line 1-8; column 7, line 2-9).

Gindre et al. do not specifically disclose using t-butyl cyclohexyl methacrylate (TBCHMA).

7. Aerts et al. disclose a coating composition in organic liquid carrier is useful as a finish for automobiles and trucks. Although Avers et al. further disclose the film-forming binder comprises a hydroxyl-functional methacrylate copolymer derived from co-monomers comprising t-butyl cyclohexyl methacrylate or para-t-butyl styrene (abstract, line 1-6; column 5, line 12-40), the use of para-t-butyl styrene is interchangeable and equivalent to the use of t-butyl cyclohexyl methacrylate. However, neither Gindre nor Aerts teach why a repeating unit of t-butyl cyclohexyl methacrylate is needed in the copolymer, particularly the resistance to yellowing by UV light. The present invention has specifically demonstrate the use of TBCHMA in comparison with EIC resin where the TBCHMA was replaced with paramethyl styrene, and U200 resin where the TBCHMA was replaced with para-t-butyl styrene.

8. With respect to the limitation of parent Claim 1, Yezrielev et al. disclose an acrylic copolymer resin useful as components in high solids acrylic coatings suitable for electrostatic spraying. The monomers comprise (A) 5-40 wt% of hydroxy-substituted alkyl (meth)acrylates and (B) 5-95 wt% of non-hydroxy-substituted alkyl (meth)acrylates. It may include optional monomer such as styrene or alpha-methyl styrene (abstract, line 1-16; column 8, line 54-68) in 2-60 wt% (column 9, line 14-16). Yezrielev et al. do not specifically disclose using t-butyl cyclohexyl methacrylate as co-monomer. In view of above paragraph for the disclosure of Averts, both Yezrielev and Averts thereby fail to teach why a repeating unit of t-butyl cyclohexyl

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methacrylate is needed in the copolymer, particularly the resistance to yellowing by UV light.

The present invention has specifically demonstrate the use of TBCHMA in comparison with EIC resin where the TBCHMA was replaced with paramethyl styrene, and U200 resin where the TBCHMA was replaced with para-t-butyl styrene.

9. After further examination and search, the examiner found the following prior art did not teach the claimed limitation: Ma (US 6,495,618) disclose **graft-copolymers useful as a dispersant for pigments are produced by a macromolecular approach which involves grafting a macromolecule onto a polymeric backbone, wherein the macromolecule has a repeating unit of t-butyl cyclohexyl methacrylate** (abstract, line 1-3; column 3, line 43-44; column 2, line 36-45). The backbone of copolymer may contain an amide group and a pigment-anchoring group (abstract, line 7-10). **The resins can be dissolved in organic solvents** (abstract, line 13). However, Ma fails to use a graft copolymer having a combination of other claimed co-monomers in the present invention.

The following six prior art **made of record** as have been discussed in the first action (paper No. 3) and not relied upon is considered pertinent to applicants' disclosure. The following references relate to the preparation of paraffinic solvent based acrylic paints:

US Patent No. 4,870,145 to Chromecek.

US Patent No. 5,462,687 to Podszun et al.

US Patent No. 5,258,355 to Bloodworth et al.

US Patent No. 5,124,226 to Yabuuchi et al.

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US Patent No. 4,985,517 to Yezrieiev et al.

US Patent No. 4,758,642 to Yezrieiev et al.

10. The key issue regarding using a copolymer having a particular repeating unit of t-butyl cyclohexyl methacrylate (TBCHMA) for UV resistance cannot be overcome by any or the combination of the above references, therefore, the present invention is novel.

11. As of the date of this office action, the examiner has not located or identified any reference that can be used singularly or in combination with another reference including the above references to render the present invention anticipated or obvious to one of the ordinary skill in the art. Therefore, the independent Claim 1 is allowed for the reason listed above. Since the prior art of record fails to teach the present invention, the remaining pending Claims 2-10 are passed to issue.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

13. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Henry S. Hu whose telephone number is (703) 305-4918. The examiner can be reached on Monday through Friday from 9:00 AM – 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (703) 308-2450. The fax number for the organization where this application or proceeding is assigned is (703) 746-9051. Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0661



Henry S. Hu

April 17, 2003



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

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